

# **EXHIBIT D**

**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF TEXAS  
FORT WORTH DIVISION**

**UNITED STATES OF AMERICA,**

§

**Plaintiff,**

§

**v.**

§

**THE BOEING COMPANY,**

§

**Defendant.**

§

**Criminal Action No. 4:21-cr-5-O**

**SECOND MEMORANDUM OPINION & ORDER**

Before the Court are the Movants' Second Amended Motion for Findings that the DPA was Negotiated in Violation of the Victim's Rights ("CVRA Motion") (ECF No. 52); the Government's Response (ECF No. 58); Movants' Reply (ECF No. 71); the Motion for Exercise of the Court's Supervisory Power over the Deferred Prosecution Agreement (ECF No. 17); the Government's Response (ECF No. 60); Movants' Reply (ECF No. 65); the Motion for an Arraignment of Boeing (ECF No. 18); the Government's Response (ECF No. 61); Boeing's Combined Response (ECF No. 62); Movants' Reply (ECF No. 66); the Motion for Disclosure of Relevant Information (ECF No. 72); the Government's Response (ECF No. 73); Boeing's Response (ECF No. 74); Movants' Reply (ECF No. 75); the Motion for Leave to File New Supplemental Factual Information in Support of Pending Motions (ECF No. 107); Boeing's Response (ECF No. 108); Movants' Reply (ECF No. 110); the Government's Response (ECF No. 114); Movant's Protective Motion for Leave to File Reply in Support of Motion (ECF No. 115); and Senator Ted Cruz's Amicus Brief in Support of Movants (ECF No. 90).

On May 3, 2022, the Court held a hearing regarding several of Movants' pending motions: Movants' Second Amended Motion (ECF No. 52); Motion for Exercise of Supervisory Power over

the Deferred Prosecution Agreement (ECF No. 17); Motion for Arraignment of Boeing (ECF No. 18); and Motion for Disclosure of Relevant Information (ECF No. 72). Following that hearing, the Court issued its first Memorandum Opinion & Order (Opinion, ECF No. 96) on July 27, 2022. In that Opinion, the Court interpreted the Crime Victims' Rights Act's ("CVRA"), 18 U.S.C. § 3771, definition of "crime victims" to include the Movants, which permits them to assert rights under the Act *provided* they establish that they were "directly and proximately harmed" by Boeing's federal offense. Opinion 7, 17–21, ECF No. 96. The Court found that the single relevant "federal offense" by which Movants must establish they were harmed is the offense admitted in the Deferred Prosecution Agreement: conspiracy to defraud the United States. *Id.* at 16.

The Court then set an evidentiary hearing on causation that occurred over the course of two days on August 5, 2022 and August 26, 2022 (*See* ECF No. 101). The parties have provided substantial briefing on causation and the issue is ripe for review. Having considered the evidence, the briefing, and the law, the Court **FINDS** that Movants have established causation and **HOLDS** that they have standing to assert rights as the representatives of "crime victims" under the CVRA.

## I. FACTUAL BACKGROUND<sup>1</sup>

In 2011, Boeing began developing a new version of the Boeing 737 called the 737 MAX. Before U.S. airlines may use new commercial airplanes such as the 737 MAX, the Federal Aviation Administration ("FAA") must evaluate and approve the new version of the airplane. The FAA

---

<sup>1</sup> The factual background is adopted from the Court's prior Memorandum Opinion & Order (ECF No. 96), issued July 27, 2022. New facts and opinions incorporated herein are taken from the DPA (ECF No. 4) and from testimonial evidence admitted in hearings held on August 5, 2022 and August 26, 2022 unless otherwise noted. *See* Second and Third Hr'g Trs. (ECF Nos. 104 and 106). The issue of Daubert was raised at certain points throughout the causation hearings but because neither the Government nor Boeing made a formal Daubert objection, despite ample opportunity, the Court deems any such objection waived. Therefore, the Court properly considers Movants' experts' opinions and the emails and reports on which they relied in formulating those opinions. Importantly, while the Government and Boeing dispute the legal conclusions to be drawn from the evidence adduced at these hearings, neither the Government nor Boeing contradicted the factual evidence produced.

determines: (1) whether the airplane meets federal airworthiness standards; and (2) what minimum level of pilot training is required for a pilot to fly the airplane for a U.S. airline. The two determinations are made by separate sub-groups within the FAA.

The Aircraft Evaluation Group (“AEG”) is the sub-group that determines the minimum level of training required for U.S.-based airline pilots to fly a new version of an aircraft. The AEG does that by evaluating the differences between the new and old aircraft versions, then publishing a “differences training” determination for the new version. Training levels range from Level A, the least intensive, to Level E, the most intensive. The AEG publishes its determination in a Flight Standardization Board Report (“FSB Report”). Airlines must train their pilots in accordance with the FSB Report, and more intensive training tends to be more expensive for the airlines.

One of Boeing’s goals in designing the 737 MAX was to ensure the designated differences training would be no greater than Level B. Levels of training greater than Level B may require expensive, time-consuming flight-simulator training, while Level B training can be completed anywhere in a matter of hours using a computer or tablet. According to one of Boeing’s chief technical pilots, differences training above Level B could have cost Boeing and its customers “tens of millions of dollars.” Deferred Prosecution Agreement (“DPA”) 33, ECF No. 4.

In developing the 737 MAX, Boeing adjusted the size and placement of the engines compared to the airplane’s predecessor. The changes altered the 737 MAX’s aerodynamics and caused the airplane’s nose to pitch up during specific flight conditions. To correct this behavior, Boeing installed the Maneuvering Characteristics Augmentation System (“MCAS”) as a new part of the flight controls for the 737 MAX. When activated, MCAS automatically adjusts the horizontal stabilizer located near the airplane’s tail, causing the nose of the airplane to pitch down. As originally designed, MCAS operated only during a maneuver called a high-speed, wind-up

turn, in which the airplane turns sharply in a corkscrew-like pattern at speeds of Mach 0.6 to 0.8. A high-speed, wind-up turn is a “certification” maneuver that a pilot would never perform on a typical commercial passenger flight. But sometime after June 2015, MCAS’s operational scope was expanded, allowing MCAS to activate at speeds as low as Mach 0.2. The low-speed expansion meant that MCAS could activate during takeoff and landing.

The Government alleges that two Boeing employees hid MCAS’s low-speed expansion from the AEG. Both employees held the position of chief technical pilot for the 737 MAX program at different times. Part of the chief technical pilot’s duties were to work with the AEG on the differences training level determination. According to the Government, the chief technical pilots intentionally hid MCAS’s low-speed expansion from the AEG so that they could secure the less rigorous—and less expensive—Level B training. In July 2017, the AEG published the first 737 MAX FSB Report, certifying the airplane for Level B differences training. The FSB Report and subsequent training materials did not mention MCAS.

Because the AEG is considered the world’s leading aviation authority—the “gold standard” among global aviation regulators—it is a matter of common practice, and industry-wide common knowledge, that foreign entities routinely follow the agency’s guidance regarding training level certifications and instructional materials. Norton Test., Third Hr’g Tr. 47:13–15, ECF No. 106.

On October 29, 2018, a 737 MAX operating as Lion Air Flight 610 crashed shortly after taking off from Indonesia. None of the 189 passengers and crew survived. The AEG learned that MCAS had activated during the flight and began investigating the operation of MCAS in connection with pilot training. On March 10, 2019, another 737 MAX, operating as Ethiopian Airlines Flight 302, crashed shortly after taking off from Ethiopia. Reports reveal that MCAS also

activated during that flight. Again, none of the 157 passengers and crew survived. Three days later, the President ordered the grounding of all 737 MAX aircraft in the United States.

Around the time of the second crash, the U.S. Department of Justice began investigating Boeing. Initially, Boeing’s response “frustrated” the Justice Department’s investigation. DPA 5, ECF No. 4. After a six-month delay, however, Boeing began cooperating with the investigation by identifying relevant documents and witnesses. In February 2020, Thomas Gallagher, a representative of the Flight 302 crash victims’ families, reached out to the Justice Department seeking information about possible investigations. *See* Movants’ App. 63–64, ECF No. 16-1. The Justice Department’s Victims’ Rights Ombudsman informed Gallagher that the FBI had advised her that it was not investigating the crash, nor was it aware of any open cases at the Justice Department. *Id.* She told Gallagher, “If criminal charges are filed at some point, victims will be advised of that and notified of their rights under the [Crime Victims’ Rights Act].” *Id.* at 64. Gallagher then reached out to the FBI Victims’ Witness Office, and a victim specialist informed Gallagher that she, too, was unaware of any FBI investigations. *Id.* at 65.

On January 7, 2021, the Government charged Boeing with conspiracy to defraud the United States under 18 U.S.C. § 371. *See* Information, ECF No. 1. The Government alleges that Boeing conspired to defraud the AEG in connection with the AEG’s evaluation of MCAS, the 737 MAX differences-training determination, and the FSB Report. *Id.* The same day, the Government filed the DPA (ECF No. 4) and a Joint Motion for Exclusion of Time Under the Speedy Trial Act (ECF No. 5). In the DPA, Boeing admitted to the Government’s statement of facts and accepted responsibility for the acts charged. *See* DPA 2, ECF No. 4.

The DPA imposes several conditions. Boeing must pay a criminal monetary penalty of \$243.6 million, which the DPA says “reflects a fine at the low end of the otherwise-applicable

Sentencing Guidelines fine range.” *Id.* at 7. Boeing also must pay \$1.77 billion in compensation to its airline customers and set up a fund of an additional \$500 million to be paid to the heirs, relatives, and beneficiaries of those who died in the two airplane crashes. *Id.* The DPA requires Boeing to meet with and report to the Justice Department’s Fraud Section to ensure Boeing’s compliance with the DPA and other federal law. *Id.* at 7, 53–56. In exchange, the DPA immunizes Boeing from criminal prosecution for all conduct described in the statement of facts. *Id.* at 14. If Boeing complies with its obligations under the DPA for three years, the Government will dismiss the charge with prejudice. *Id.* at 16. If, on the other hand, Boeing breaches or fails to comply with any provision, the Government may prosecute Boeing for the crime charged. *Id.* at 16–19.

On December 16, 2021, more than a dozen family members and representatives of the crash victims filed three motions in this case. In general, Movants argue that the Government and Boeing violated federal law by negotiating the DPA behind closed doors, without conferring with Movants. First, Movants request a finding that Boeing and the Government negotiated the DPA in violation of their rights as victims under federal law. *See* CVRA Mot., ECF No. 52. Second, Movants request that the Court withhold approval of the DPA to ensure the Government confers with the victims. *See* ECF No. 17. Third, Movants ask for an arraignment of Boeing in which Movants will have an opportunity to be heard on the conditions of release. *See* ECF No. 18. A few months later, Movants also requested discovery procedures to obtain information from the Government and Boeing relevant to their motions. *See* ECF No. 72.

In January 2022, the Government held several meetings with some of the Movants and their representatives. The Attorney General personally attended the final meeting. After listening to the Movants’ perspectives, the Government reiterated its position to stand by the DPA. Movants insist these meetings were inadequate. After receiving extensive briefing on the issues, the Court

held multiple hearings in which representatives for Movants, the Government, and Boeing presented argument. In this Opinion, the Court takes up the sole issue of causation, and ultimately, whether Movants can show they represent the interests of “crime victims” under the CVRA.

## II. LEGAL BACKGROUND

The immediate dispute arises from the Movants’ challenge to the Government and Boeing’s DPA and motion for delayed prosecution under the Speedy Trial Act, 18 U.S.C. § 3161, which this Court granted to allow Boeing the opportunity to “demonstrate [its] good conduct” for a period of three-and-a-half years rather than face immediate prosecution. 18 U.S.C. § 3161(h)(2); *see Order*, ECF No. 13.

The Speedy Trial Act generally requires courts to begin trial within seventy days after a defendant is charged with a crime. *See* 18 U.S.C. § 3161(c)(1). One exception to that general timeline, however, exists for “[a]ny period of delay during which prosecution is deferred by the attorney for the Government pursuant to written agreement with the defendant, with the approval of the court, for the purpose of allowing the defendant to demonstrate his good conduct.” *Id.* § 3161(h)(2). The Government and Boeing filed one such DPA and a joint motion for exclusion of time on January 7, 2021. *See* Deferred Prosecution Agreement, ECF No. 4; J. Mot. for Exclusion of Time, ECF No. 5. The Government and Boeing “believe[d] that such a delay and speedy trial exclusion will allow [Boeing] to demonstrate its good conduct.” J. Mot. for Exclusion of Time 3, ECF No. 5. The Court agreed and approved the DPA on January 24, 2021. Order, ECF No. 13. While that short process generally satisfies the requirements of the Speedy Trial Act, if the crime affected victims, the Government and the Court must take additional steps.

The Crime Victims’ Rights Act (“CVRA”) guarantees crime victims certain rights in criminal proceedings. *See* 18 U.S.C. § 3771. Among those rights are the right to be heard at any public proceeding involving the release, plea, sentencing, or parole of the defendant; the right to

confer with the Government attorney in the case; the “right to be informed in a timely manner of any plea bargain or deferred prosecution agreement;” and the “right to be treated with fairness.” 18 U.S.C. § 3771(a). The CVRA requires the Government to make “best efforts to see that crime victims are notified of, and accorded, the rights” under the Act. *Id.* § 3771(c)(1).

The CVRA also imposes duties on district courts. “In any court proceeding involving an offense against a crime victim, the court shall ensure that the crime victim is afforded the rights described in subsection (a).” *Id.* § 3771(b)(1). The crime victims, the crime victims’ representative, or the Government attorney may assert the crime victims’ rights under the Act. *Id.* § 3771(d)(1). And the district court “shall take up and decide any motion asserting a victim’s right forthwith.” *Id.* § 3771(d)(3).

Movants claim that the Government violated their rights under the CVRA by (1) failing to confer with Movants, (2) failing to provide Movants with timely notice of the DPA, and (3) not treating Movants “with fairness” as required by the CVRA. *See* CVRA Mot. 24–32, ECF No. 52. Movants propose a variety of remedies but, in general, ask the Court to set aside the DPA and order the Government to comply with the Act. *See id.* 33–34. By contrast, the Government and Boeing oppose Movants’ requested relief. They raise several objections: (1) the crash victims are not “crime victims” under the CVRA; (2) the Court does not have authority to supervise, modify, or reject a DPA; (3) the CVRA does not provide for a motion to reopen a DPA; and (4) equitable considerations preclude modifying the DPA.

The Court leaves aside questions regarding the Court’s supervisory power and remedy for purposes of this Opinion. Because it has already determined that the Movants are “crime victims” provided they establish causation, the sole question the Court addresses here is whether Movants

represent individuals<sup>2</sup> who were “*directly* and *proximately* harmed as a result of” Boeing’s conspiracy to defraud the United States based on the facts admitted by Boeing. 18 U.S.C. § 3771(e)(2)(A) (emphasis added).

### III. LEGAL STANDARD

The CVRA’s “crime victim” definition “imposes dual requirements of cause in fact and foreseeability,” *In re Fisher*, 640 F.3d 645, 648 (5th Cir. 2011) (“*Fisher I*”), requiring Movants to establish that they represent individuals who were “directly and proximately harmed as a result of the commission of [Boeing’s conspiracy to defraud the United States.]” 18 U.S.C. § 3771(e) (emphasis added). This causal inquiry is “fact-specific.” *In re Rendon Galvis*, 564 F.3d 170, 175 (2d Cir. 2009). And while the Court accepts as true the facts stipulated in the DPA as the basis of its factual inquiry, the Government agrees that the Court’s causation analysis is not confined solely to that agreement’s statement of facts. First Hr’g Tr. 93, ECF No. 95. The Fifth Circuit has not addressed the evidentiary standard required to prove causation under the CVRA, but other courts have sensibly applied a preponderance-of-the-evidence standard. *See United States v. Giraldo-Serna*, 118 F. Supp. 3d 377, 382 (D.D.C. 2015). Neither the parties nor the Movants contest this standard’s applicability here. *See* Third Hr’g Tr. 205:19, 215:13, 220:20, ECF No. 106. Ultimately, Movants, as purported victims’ representatives, carry the burden to establish both direct and proximate cause. *See Giraldo-Serna*, 118 F. Supp. 3d. at 382.

“A person is directly harmed by the commission of a federal offense where that offense is a but-for cause of the harm.” *Fisher I*, 640 F.3d at 648 (footnote omitted) (emphasis added). That is, direct (or actual) cause is established by showing that a latter event would not have occurred

---

<sup>2</sup> Because the Government and Boeing do not dispute that Movants are “lawful representative[s],” 18 U.S.C. § 3771(d)(1), of those who died in the crashes and are thus able to represent their interests, as noted, the relevant question here is whether the Movants can satisfy the requisite causal elements.

“but-for” the former’s occurrence. *Paroline v. United States*, 572 U.S. 434, 449–50 (2014). Stated another way, “[a]n act is a but-for cause of an event if the act is a *sine qua non* of the event—if, in other words, the absence of the act would result in the non-occurrence of the event.” *In re Fisher*, 649 F.3d 401, 402–03 (5th Cir. 2011) (“*Fisher II*”). As the Fifth Circuit has made clear, this is not a difficult threshold to meet since there are frequently many causes to a particular event. *United States v. Salinas*, 918 F.3d 463, 466 (5th Cir. 2019). Thus, establishing but for causation is “not a quest for sole cause.” 4 HARPER, JAMES & GRAY, THE LAW OF TORTS § 20.2 (3d ed. 2007); *Salinas*, 918 F.3d at 466. Indeed, “[t]he concept of actual cause is not a metaphysical one but an ordinary, matter-of-fact inquiry into the existence of a causal relation as laypeople would view it.” *Paroline*, 572 U.S. at 444 (quoting HARPER, THE LAW OF TORTS § 20.2).

Proximate cause is not as straightforward. “[T]o say that one event was a proximate cause of another means that it was not just any cause, but one with a sufficient connection to the result.” *Parline*, 572 U.S. at 444. That is, the proximate cause must be a substantial factor in bringing about the harmful result. Proximate cause is also often framed in terms of foreseeability. *Id.* In the criminal context, a person is “proximately harmed when the harm is a reasonably foreseeable consequence of the [defendant’s] criminal conduct.” *Fisher I*, 640 F.3d at 648 (footnote omitted) (emphasis added). When analyzing this element of foreseeability, however, courts have routinely held that “foreseeability turns on existence of a general danger, *not* awareness of the *exact sequence of events* that produces the harm.” *Austin v. Kroger Texas, L.P.*, 864 F.3d 326, 333 (5th Cir. 2017) (emphasis added). That is, “what is required to be foreseeable is only the general character or general type of the event or harm[.]” See W. PAGE KEETON ET AL., PROSSER & KEETON ON THE LAW OF TORTS 263–355 (5th ed. 1984). Still, the proximate cause and effect must be connected enough that “the causal link between conduct and result is [not] so attenuated that the

consequence is more aptly described as mere fortuity.” *Paroline*, 572 U.S. at 445. Thus, proximate cause can be said to include a dual-part requirement of both foreseeability and substantial relatedness.

#### IV. ANALYSIS

##### A. Direct Causation

The Court must decide whether, but for Boeing’s conspiracy to defraud the FAA AEG of relevant information regarding the MCAS system’s low-speed expansion capabilities, the 346 passengers and crew on Lion Air Flight 610 and Ethiopian Airlines Flight 302 would have died in the crashes. In other words, whether the absence of Boeing’s fraud have resulted in the non-occurrence of the events. *Fisher II*, 659 F.3d at 402–03. On the evidence produced, the Court finds that without Boeing’s fraud the crashes would not have occurred.

The AEG principally relied on Boeing’s chief technical pilots for information relevant to its 737 Max FSB Report, including for information necessary to determine the appropriate level of differences training the AEG would certify. Boeing’s employees knew the agency relied on their input in making this certification decision but withheld from AEG the fact that MCAS could activate at low speeds, including during takeoffs and landings—a fact highly relevant for purposes of pilot training. Lacking this knowledge and in reliance on Boeing’s fraud, AEG certified the 737 MAX for Level B training, rather than the more rigorous, and far more costly, Level D training that AEG would have certified had it known of MCAS’s low-speed expansion capabilities. DPA ¶ 45, ECF No. 4.

This causal relationship is confirmed by the independent opinions of Christopher Keyes (pilot and flight instructor who held various positions in the FAA) and Vickie Norton (pilot with training on erroneous MCAS activation recovery scenarios for the 737 MAX). Both said the AEG certified the 737 MAX at a lower training differences level (Level B) than they otherwise would

have (Level D) *in reliance* on Boeing’s fraudulent withholding of relevant MCAS information. Second Hr’g Tr. 15:21–16:2; Third Hr’g Tr. 25:18–30:3. Neither the Government nor Boeing has produced evidence to the contrary. And indeed, this projected course of conduct is affirmed by the fact that AEG ultimately did order Level D flight simulator training for the 737 MAX after obtaining all relevant information about MCAS’s low-speed expansion. Norton Test., Third Hr’g Tr. 31:1–32:5, ECF No. 106.

The AEG also removed all references to MCAS from its FSB Report based upon Boeing’s misrepresentations about the system’s low-speed capabilities. DPA ¶ 46, ECF No. 4. On multiple occasions, Boeing employees concealed their knowledge of MCAS’s low-speed expansion from AEG and suggested the agency remove all reference to MCAS in its FSB Report based on the misrepresentation that the system would not activate during routine flight operating procedures. DPA ¶¶ 35–43, ECF No. 4.

AEG’s Level B training certification and material omissions from the FSB Report, in turn, led to global adoption of equivalent training standards and distribution of training materials that made no mention of MCAS. Because the FSB Report omitted material information related to MCAS, U.S.-based airplane manuals and pilot-training materials, relying on the report, did not include related information about the system. DPA ¶ 46, ECF No. 4. By extension, foreign entities did the same. As a matter of common aviation industry practice, it is well-known that foreign airlines and foreign civil aviation authorities rely on the FAA’s guidance regarding airplane certification, training requirements, and other relevant information. Norton Test., Third Hr’g Tr. 45:19–52:20, ECF No. 106. “The FAA is perceived to be the world’s eminent aviation authority, the gold standard . . . and [] foreign carriers follow their lead.” Norton Test., Third Hr’g Tr. 47:13–15, ECF No. 106. As a result, Boeing’s airline customers and every pilot-operator of a 737 MAX,

worldwide, received both inadequate training and materially inaccurate operational manuals based on guidance taken from the FSB Report. *See DPA ¶ 47*, ECF No. 4; Norton Test., Third Hr'g Tr. 28:17–31:12, ECF No. 106.

Given this global industry practice, Indonesian and Ethiopian regulatory authorities would be among the foreign entities to adopt the FAA's guidance in issuing their own training standards and instructional materials. Norton Test., Third Hr'g Tr. 61:16–21, 62:13–63:22, ECF No. 106. In fact, in 2014, Boeing directly represented to Ethiopian Airlines that it would not need differences training higher than Level B for operation of the 737 MAX. Norton Test., Third Hr'g Tr. 63:17–19, 80:2–23, ECF No. 106. It follows that the pilots aboard Lion Air Flight 610 and Ethiopian Airlines Flight 302 would have received inadequate training and materials that made no mention of MCAS. And in Captain Norton's expert opinion, *had* the pilots been trained to respond when confronted with erroneous MCAS activation, as they were here, they could have safely landed those planes. Norton Test., Third Hr'g Tr. 65:5–14, 67:20–77:1, ECF No. 106. Indeed, an adequately trained pilot could have quickly averted the crises by activating a series of stabilizer trim cutout switches to override MCAS as it was forcing the planes into a nosedive. *Id.*<sup>3</sup>

Thus, the direct causal chain is clear. But for Boeing's fraudulently concealing MCAS's low-speed expansion capabilities, the AEG would have certified the 737 MAX at Level D training or higher and would have included relevant MCAS information in the FSB Report which would have been included in pilot manuals. But for inadequate differences training and omission of MCAS information from instructional materials, pilots operating the 737 MAX worldwide would have been aware of the risk of MCAS activation during takeoff and landing. But for lack of

---

<sup>3</sup> A prior flight on the same Lion Air aircraft, experiencing the same erroneous MCAS activation, was safely landed when an additional third pilot had been onboard and assisted that flight's Captain and First Officer by activating trim cutout switches to override MCAS. *See* Norton Test., Third Hr'g Tr. 192:19–193:20.

adequate training and advance knowledge of the system that thwarted both of those aircraft carriers, the pilots aboard Lion Air Flight 610 and Ethiopian Airlines Flight 302 would have been able to safely land those flights.

In other words, Boeing's fraud is the *sine qua non* of the harmful result. Had Boeing's employees not concealed their knowledge about MCAS, the AEG would have certified a more rigorous level of training, pilots around the world would have been adequately prepared for MCAS activation, and neither crash would have occurred.

Three principles gleaned from tort law's causation analysis confirm the Court's conclusion: (1) but for causation is generally established where the rule of conduct proscribed was designed to prevent the type of harm that occurred; and (2) when defendant's conduct increases the risk of danger and the harm is the conduct's natural consequence; and (3) where ordinary experience predicts a harmful result, and that result actually follows, causation likely exists. See David W. Robertson, 75 TEX. L. REV. 1765, 1774–75 (1997). Here, criminally conspiring to defraud United States safety regulators of relevant information is proscribed in order to prevent precisely this sort of catastrophic outcome. Moreover, Boeing's fraudulent misrepresentations to the FAA during its training certification decision-making process undoubtedly increased the risk of inadequate pilot training. And any "matter-of-fact inquiry" by reasonable "laypeople" would suggest that poorly trained pilots might result in a catastrophic incident such as an airplane crash. *Paroline*, 572 U.S. at 444 (quoting HARPER, THE LAW OF TORTS § 20.2). This prediction from ordinary experience, played out in the dual accidents in question, further evinces direct causation.

The Government's efforts to introduce intervening causes to break the causal chain are unconvincing. They argue that the Lion Air Flight 610 plane's incorrectly installed sensor (increasing the likelihood of erroneous MCAS activation) and unaddressed maintenance issues are

sufficient to break the direct causal link. Third Hr'g Tr. 220:12–224:4, ECF No. 106. But, as the law clearly provides, events often have multiple causes. It may be fair to say that the sensor error, however severe, was *a* but for cause of the accident. That does not override the simultaneous fact that MCAS was also a direct cause.

The Government also argues that, at the very least, the first crash involving Lion Air Flight 610 is an intervening cause with respect to the second crash, Ethiopian Airlines Flight 302, because, after the first tragic event, “the entire aviation community now knew about MCAS[‘s]” low-speed expansion capability. Third Hr'g Tr. 224:7–8, ECF N. 106. Weeks after the first crash, and prior to the second, the AEG published an Emergency Airworthiness Directive that included some instruction about deactivating MCAS. Third Hr'g Tr. 231:20–232:16, ECF No. 106. But the AEG’s subsequent discovery that MCAS’s expanded operational scope “*may have played a role* in the crash” and their distribution of the directive does not demonstrate by a preponderance of the evidence that the global aviation community—including the pilots on Ethiopian Airlines Flight 302—at that time possessed all the information necessary to avoid the risks created by Boeing’s initial, and ongoing, deception of the FAA. DPA ¶ 49, ECF No. 4. Importantly, during the FAA’s investigation in the months following the first crash, Boeing’s employees continued to mislead the government about their knowledge of MCAS. DPA ¶¶ 49–51, ECF No. 4. It follows, then, that if the FAA still lacked all relevant information about the MCAS’s low-expansion capabilities, by proxy, so did the broader aviation community.

\* \* \* \*

Movants have established a direct chain of causation. Had Boeing not committed its crime, the FAA AEG would have required Level D differences training for operators of the 737 MAX and would have included information related to MCAS in relevant training materials. As a result,

foreign regulators—including Indonesian and Ethiopian authorities—would have issued similar training certifications and instructional materials, having taken their queue from the world’s leading authority on aviation standards, the FAA. And ultimately, foreign operators of the 737 MAX—including the pilots on Lion Air Flight 610 and Ethiopian Airlines Flight 302—would have received training adequate to respond to the MCAS activation that occurred on both aircrafts. In sum, but for Boeing’s criminal conspiracy to defraud the FAA, 346 people would not have lost their lives in the crashes.

### **B. Proximate Causation**

Next, the Court must answer whether the airplane crashes were a reasonably foreseeable consequence of Boeing’s scheme to defraud federal aviation regulators and whether the crime and the resulting harm are substantially related enough that the accidents cannot be described as a mere fortuity. The answer to both questions is yes. Proximate cause foreseeability analysis requires only that Boeing could foresee that its deceit created the “existence of a *general* danger,” not an “awareness of the exact sequence of events” that caused the accidents. *Kroger Texas, L.P.*, 864 F.3d at 333 (emphasis added). Substantial factor analysis requires a showing that Boeing’s crime and the resulting deaths are not “so attenuated that the consequence is more aptly described as mere fortuity.” *Paroline*, 572 U.S. at 445.

Applying these rules to the facts at bar, it is generally foreseeable that Boeing’s deceiving the AEG, which resulted in an improperly low level of differences training certification, would potentially cause a disaster. Norton Test., Third Hr’g Tr. 45:22–46:18, 195:2–9, ECF No. 106. As noted above, reasonable laypeople could easily predict that inadequate pilot training might result in catastrophic airplane crashes, as it did here. And given the well-recognized global industry practice of foreign entities following the FAA’s recommended guidance, it was generally

foreseeable that Lion Air's and Ethiopian Airlines' pilots, would have been inadequately trained with respect to MCAS because of foreign regulators' reliance on the AEG's Level B certification and silence on MCAS in its FSB Report. Not only was this outcome generally foreseeable, Boeing admitted as much: "FAA is pretty powerful and most countries defer to what the FAA does[.]"  
Norton Test., Third Hr'g Tr. 54:20–55:5, ECF No. 106; Movants' Ex. 6.

Here again, the Government argues that Boeing's employees' limited knowledge about the practical implications of MCAS's expanded operational scope negates foreseeability. Third Hr'g Tr. 212:1–213:25, ECF No. 106. That is, because they did not know how MCAS activation at low-speed could materialize in actual operation, their limited knowledge cuts off proximate cause. But that is not the law. Boeing's employees needed only recognize the *general* risk that lying to the AEG in the course of training certification discussions might cause. Foresight into the precise circumstances that might result from insufficient training and instructional materials is not required. Clearly, the general risk created by a pilot's lack of training is a potential catastrophic event like the two that occurred here.

Nor are the resulting crashes so attenuated from Boeing's lies to the AEG that the accidents might be described as "mere fortuity." As set out at length above, Movants have established adequate direct causal connection between Boeing's criminal conspiracy and the resulting crashes, which is sufficient to satisfy proximate cause's substantial factor requirement.

\* \* \* \*

For the reasons articulated, the Court finds that the tragic loss of life that resulted from the two airplane crashes was a reasonably foreseeable consequence of Boeing's conspiracy to defraud the United States. Having demonstrated direct and proximate cause, the Movants have shown they are proper representatives of "crime victims" for purposes of the CVRA and are therefore entitled

Case 4:21-cr-00005-O Document 116 Filed 10/21/22 Page 18 of 18 PageID 2045

to assert rights under the Act. Because the Court has made its causal determination based on the facts outlined in the DPA and the evidence adduced at the causation hearings, it need not address Movants' pending motions related to Movants' status as crime victims or production of evidence in support of that claim.

#### V. CONCLUSION

The Court **HOLDS** that the credible evidence proves Movants' status as lawful representatives of "crime victims" under the CVRA and that they therefore have standing to assert rights under the Act. Accordingly, the Court **GRANTS** Movants' Second Amended Motion for Findings that the DPA was Negotiated in Violation of the Victim's Rights (ECF No. 52) and **DENIES as moot** Movants' related pending motions (ECF Nos. 72, 107 and 115). Next, the Court must decide the question of remedy and leaves those related motions pending on the docket. While the Court believes the parties have provided adequate briefing with respect to remedy, the parties will **NOTIFY** the Court **on or before October 28, 2022** if they feel the need to supplement their briefing on this issue.

SO ORDERED this 21st day of October, 2022.



Reed O'Connor  
UNITED STATES DISTRICT JUDGE